DOCUMENT RESUME

ED 398 527 CG 027 337

AUTHOR Redetzke, Pamela M.

TITLE Attitudes toward Alcohol and Other Mind Altering Substances of Students in Seventh, Eighth, and Ninth Grades.

PUB DATE 23 Jul 96
NOTE 122p.; M.S. Thesis, Fort Hays State University.
PUB TYPE Dissertations/Theses - Masters Theses (042) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC05 Plus Postage.
DESCRIPTORS *Adolescents; *Drinking; Drug Use; Grade 7; Grade 8; Grade 9; Junior High Schools; Junior High School Students; *Student Attitudes; Student Behavior; Student Problems; *Substance Abuse; *Youth Problems
IDENTIFIERS Drug Abuse Resistance Education Program

ABSTRACT

Adolescents continue to use alcohol and other drugs despite the profound risks to their health. This thesis examines the attitudes of students in grades 7-9 toward alcohol and other nonprescriptive mind-altering substances. Eight independent variables were investigated: (1) gender; (2) grade placement; (3) DARE (Drug - Abuse Resistance Education) participation status; (4) family structure; (5) alcohol use; (6) nonprescriptive mind altering substance use; (7) knowledge of alcohol; and (8) knowledge of nonprescriptive mind altering substances. The sample consisted of 233 students. Results appeared to support the following generalizations: students who use alcohol have a positive attitude toward drinking; gender, grade placement, and DARE participation status should be interpreted concurrently for attitude toward drinking; the independent variables gender and grade placement should be interpreted concurrently for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use; and the independent variables family structure, alcohol use, and knowledge of alcohol should be interpreted concurrently for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use. Implications of the study suggest that school officials should develop programs to reduce alcohol and substance abuse of middle and high school students and communities, in general, should focus greater attention on the use and abuse of alcohol and other substances. Appended are various pieces of correspondence, survey instruments, summary tables of alcohol use and substance use, and instructions for students. Contains 40 references. (RJM)

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ED 398 527

ATTITUDES TOWARD ALCOHOL AND OTHER MIND ALTERING SUBSTANCES OF STUDENTS IN SEVENTH, EIGHTH, AND NINTH GRADES

being

A Thesis Presented to the Graduate Faculty
of the Fort Hays State University in
Partial Fulfillment of the Requirements for
the Degree of Master of Science

by

Pamela M. Redetzke
B.S., Fort Hays State University

Date 7-23-96 Approved Bill Daley
Major Professor

Approved _____
Chair, Graduate Council

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Graduate Committee Approval

The Graduate Committee of Pamela M. Redetzke hereby approves her thesis as meeting partial fulfillment of the requirements for the degree of Master of Science.

Approved _____
Chair, Thesis Committee

Approved _____
Committee Member

Approved _____
Committee Member

Approved _____
Committee Member

Date 7-23-96

Acknowledgments

Gratitude is extended to all who have assisted me in any way through the completion of my graduate work. Professors, family, and friends, your help, encouragement, and patience have increased my appreciation and admiration for each of you.

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Abstract

The purpose of the researcher was to investigate the attitudes toward alcohol and other nonprescriptive mind altering substances of students in grades 7-9. The 8independent variables investigated were gender, grade placement, DARE participation status, family structure, alcohol use, nonprescriptive mind altering substance use, Knowledge of Alcohol, and Knowledge of Nonprescriptive Mind Altering Substances. The dependent variables were scores from the Attitude Toward Drinking and Attitude Toward Nonprescriptive Mind Altering Substance Use subscales of an alcohol and substance questionnaire. Three composite null hypotheses and one null hypothesis were tested at the .05 level of significance. The sample consisted of 233 students in grades 7-9. For the three composite nulls, a status survey factorial design was employed using a three-way analysis of variance (general linear model), and the null hypothesis was tested employing a t-test for correlation coefficient. A total of 41 comparisons were made, plus 2 recurring. Of the 41 comparisons 17 were for main effects and 24 for interactions. Of the 17 main effects 7 were statistically significant at the .05 level. Of the 24 interactions 6 were statistically significant at the .05 level.

The results of the present study appeared to support the following generalizations:

1) students who use alcohol have a positive attitude toward drinking,
2) students who use substances have a positive attitude toward drinking,
3) gender, grade placement, and DARE participation status should be interpreted concurrently for attitude toward drinking,
4) gender and grade placement should be interpreted concurrently for attitude toward mind altering substances,
5) gender, grade placement, and DARE participation status should be interpreted concurrently for attitude toward mind altering substance use,
6) family structure, alcohol use, and knowledge of alcohol should be interpreted concurrently for attitude toward mind altering substance use,
7) gender and knowledge of mind altering substances should be interpreted concurrently for attitude toward mind altering substance use, and
8) gender, substance use, and knowledge of mind altering substances should be interpreted concurrently for attitude toward mind altering substance use.

Introduction

Overview

Adolescents continue to use alcohol and other mind altering substances despite the profound risks to their psychological, social, and physical health (Cooper, 1994). In addition to the obvious health risks, Casemore (1990) stated, "... The use, abuse, and dependence on alcohol and other mind altering substances greatly impairs youths' ability to develop fully, and exacerbates and compounds other biopsychological problems" (p. 1).

The most recent studies showed a rising rate of legal and illegal drug use among youth. After more than a decade of gradual decline in overall use of alcohol, tobacco and other drugs by our nations youth, many researchers reported signs that this trend is reversing (Battle, 1994). Battle's report indicated that nearly 9 out of 10 high school seniors had admitted to experimenting with alcohol, and almost 3 out of 10 from that group had abused alcohol. Battle's review indicated that from 2 to 6 percent of adolescents are problem drinkers, and 6 to 9 percent have other drug problems. Substantial alcohol, inhalant, and cigarette use was reported as early as fourth grade. According to Johnston and Others (1995) daily drug use among eighth graders had quadrupled since 1992. By the end

of eighth grade, nearly one third (32%) had tried a nonprescriptive mind altering substance. Nearly twice as many teenagers had smoked marijuana at least once in the previous 12 months as in 1992, and one in four American school children had tried illegal drugs before reaching high school ("Drug Abuse Rising," 1995).

According to a Health and Human Services press release (The National Clearinghouse for Alcohol and Drug Information [NCADI], 1996), between 1994 and 1995 the use of cigarettes and most illicit drugs increased among students surveyed. These trends are verified by surveys conducted by the National Household Survey on Drug Abuse (NHSDA) and the National Parents' Resource Institute for Drug Education (PRIDE).

Attitudes toward alcohol and other nonprescriptive mind altering substances have been studied to determine their relationship with use and abuse. On the national level youths' perceived risk of harm in drug and alcohol use declined in 1994 (Johnston and Others, 1995).

Kandel, Marguiles, and Davies (1978) proposed a developmental theory for alcohol and drug use. First use of alcohol was linked to first use of marijuana, and first use of marijuana linked to first use of hard drugs. Donnermeyer (1993) surveyed 197 eleventh grade students in a rural setting for past and current drug use and found support for the developmental model. Early use of alcohol

predicted early use of marijuana and a strong positive relationship was found between marijuana and later hard drug use. According to a report released by the U.S. Department of Health and Human Services, the majority of people who use illegal drugs first used alcohol ("Too Many People Drink...," 1991).

Programs aimed at youth to help prevent the use and abuse of alcohol and other mind altering substances have as one of their focuses attention on the gateway drugs; cigarettes, alcohol, and marijuana (Harmon, 1993). The effectiveness of one such program, Drug Awareness Resistance Education (DARE), has been studied by Blasik and Belsito (1993). The results showed increased knowledge and a more negative attitude toward drug use and those who use drugs. Similar results were found by Harmon. Individuals usually begin with tobacco or alcohol and progress to marijuana (Alberts, Hecht, Miller-Rassulo & Krizek, 1992).

Grade Level and Use

Research results showed an increasingly early involvement with alcohol and other chemicals (Gibbons, Wylie, Echterling, & French, 1986). Respondents in grades 7-12 indicated 17% had never drunk alcohol. Of the 83% who had drank, 57% had their first drink by age 12 (sixth grade). Gibbons, et al. found that while 86% of seventh graders had drunk no more than 3 or 4 times in the past

year, 30% of the 12th graders drank at least weekly. The sample studied consisted of youth ages 12-20, with the average age being 16. For frequency of drinking and amount usually drunk, a heavy drinking index was created. Number of occurrences within the past month were assigned values of 1 to 8 (1 = none, 2 = once, 3 = 3 or 4 times, 4 = monthly, 5 = 2 or 3 times a month, 6 = weekly, 7 = 2 or 3 times a week, 8 = daily). The quantities drunk were assigned values 1 to 8 also. (1 = 1 drink or less, 2 = about 2 drinks, 3 = about 3 drinks, 4 = about 4 drinks, 5 = about 5 drinks, 6 = about 6 drinks, 7 = about 9 drinks, 8 = 12 or more drinks). The values of frequency and quantity were added together to give a heavy-drinking score. The researchers found that 90% of the seventh graders could be categorized as light drinkers (6 or less on the heavy-drinking scale), but by 12th grade, 39% were light drinkers and 13% were heavy drinkers with a score of 13 or more.

Shilts (1991) found that information on factors associated with alcohol and substance use for junior high students was scarce compared to high school seniors and college students. Therefore, 237 middle school students in seventh and eighth grades were administered the Alcohol and Drug Use Index for this study. According to Shilts, one of the risk factors relative to possible alcohol and substance use was the age at which experimentation began. The results of a study pertaining to drug culture expertise by

Raskin, Novecek and Hogan (1992) revealed high school students use of cigarettes, marijuana, and amphetamines to be at a higher rate than that of middle school students.

A status report on Colorado youth compiled by Terrill (1992) showed that more than 10% of fourth graders had used cigarettes. By eighth grade that figure grew to 50%. More than 25% of fourth graders had tried alcohol and by sixth grade the figure was over 40%. About 4% of the sixth graders reported having tried marijuana and having been drunk. The percentages increased as the students progressed through school to where 90% of seniors had tried alcohol, 73% had been drunk at least once, and 40% had used marijuana.

A study of current literature by Donnermeyer (1992) found age (grade) to be related to drug use. Older users consumed more alcohol, marijuana and hard drugs, and did so more frequently than younger users.

Substance use among rural Indiana youth grades 4-12 was the focus of research by Deffenbaugh, Hutchinson, and Blankschen (1993). A questionnaire developed by the National Parents Resource Institute for Drug Education, Inc. (PRIDE) was used to survey 2,125 students. The findings indicated that alcohol was the substance most frequently consumed by the participants. Students in sixth grade reported a consumption rate of 15.6% in the past

year. Junior high students (grades 7-8) reported having used beer (34.7%) and wine coolers (33.5%) in the past year. Marijuana use in the previous year was reported by 1.9% of the students in grade 6. The seventh and eighth grade students reported that 11.5% had used marijuana within the last year. Cigarette and inhalant use was also reported with similar increases in percentages as students moved into older grades.

Developmental and gender differences were investigated in a group of adolescents grades 7-12 by Gfellner and Hundleby (1994). As they had expected, the older students engaged in more substance use than the younger participants. The greatest differentiation across the grades for students' use of substances was for alcohol, cigarettes, and marijuana. Adolescents showed progressive and increased use of alcohol at each grade. Cigarette use increased in students at grade 9, grade 10, and grade 12. Increases were also seen for marijuana use in grades 10 and 11.

Johnston and Others (1995) reported that for alcohol use the peak years of initiation were in seventh through ninth grade. The peak years for initiation of cigarette use were in sixth and seventh grade and some even earlier. For marijuana the highest initiation rates are seen in grades 9 through 11, but by eighth grade 13% of the 1993 eighth graders had already tried marijuana. Most other

illicit drugs do not reach their peak years until grades 10 through 12.

Gender and Use

With few exceptions males use alcohol and other nonprescriptive mind altering substances at a higher rate than females. Research results on alcohol use by gender were completed by Gibbons, Wylie, Echterling, and French (1986). The subjects were a group of 650 students in grades 7-12 in a small mid-Atlantic town. Gibbons, et al. found that by age 12, 46% of the males and 21% of the females had their first alcoholic drink. By age 14 the gap between the sexes was closing with 82% of the males having had at least tried alcohol and 80% of the females having used alcohol at least once. Beck and Summons (1987) also studied gender differences and alcohol consumption. Beck and Summons found that alcohol was consumed more frequently and in greater quantities by male high school students than by females.

Windle (1991) reported on findings from the National Adolescent Student Health Survey which indicated that 12.5% of eighth grade males used alcohol and other drugs in combination versus 8th grade female use of the combination at 11.8%. Tenth graders in the same study showed rates of 18.5% for males and 15.8% for females using the same combination.

Males tended to use alcohol and all substances more frequently than females according to Raskin, Novacek, and Hogan (1992), Donnermeyer (1992), and Morgan (1993). An exception to higher male usage was found by Gfellner and Hundleby (1994) when they studied a group of 2,619 Canadian youth in grades 7-12. Overall, male usage was higher for alcohol, speed, and other hallucinogens; however, 12th grade girls used cigarettes at a higher rate than males.

Flannery, Vasonyl, Torquati, and Fridrick (1994), Anderson and Henry (1994), Beman (1995), Steele, Forehand, Armistead, and Brody (1995), and Bahr, Marcos, and Maughan (1995) all found males using alcohol and other mind altering substances with greater percentages than females. Beman added that little had been reported as to the reasons for these differences. Johnston and Others (1995) reported that the only notable exception found for 12th grade alcohol and illicit drug use was for stimulants, in which females were at the same level or slightly higher than males.

Family Structure

According to Barrett (1990), no meaningful conclusions could be drawn concerning family structure and substance use. Barrett's 160 subjects included 18 from non-intact families which were not enough from which to draw an accurate conclusion.

A large midwestern suburban/rural county was the setting for a drug and alcohol survey of 7,426 secondary and middle school students (Van Nelson et al., 1991). The instrument used included items which touched on participation in activities, family structure, and substance abuse. The data showed that where both parents were present in the home, a higher percentage of respondents reported not using alcohol or other substances.

Shilts (1991) used a Student Attitude and Behavior Questionnaire to study the relationships between students extracurricular activities, peer influence, personal attitudes, and group membership. One of the findings suggested a strong relationship between the family system and the use of alcohol and drugs. Of the abusers in this study, 54% indicated they used drugs to relieve pressure from the home. The review of literature by Donnermeyer (1992) did not find consistent research to support a relationship between family structure and alcohol and drug use. Duncan, Duncan, and Hops (1994) studied 5 different groups, ages 11-15 over a 4 year period and found that those adolescents who came from single-parent families were more likely to have elevated use of alcohol.

Donnermeyer (1993) surveyed a group of 197 rural and small-town youth and found that family structure did not exert any substantial direct effect on alcohol, marijuana, or drug use. Family variables were the focus of a review

of the literature by Denton and Kampfe (1994) who found that a considerable number of drug users were raised in single-parent homes. Generally, the absence of one parent did relate to more substance abuse.

Harbach and Jones (1995) studied youth in an adolescent drug treatment center, as well as subjects from public and private schools. The purpose of the researcher was to examine beliefs and attitudes of youth and parents in families where there appeared to be great risk for substance use and compare them with families where risk was less evident. The results indicated substantial differences in reported belief systems between single and dual parent families. These beliefs appeared to place the single-parent adolescent at a higher risk for use of alcohol and drugs.

Beman (1995) reviewed the literature and found support for the relationship between single-parent homes and higher drug use. Beman suggested that the absence of the father does affect behavior and results in greater use of alcohol and other drugs.

Drug Abuse Resistance Education (DARE)

Until Harmon's work (1993), no research could be found pertaining to the effectiveness of Drug Abuse Resistance Education (DARE). Harmon used a pretest and posttest two group design to assess treatment of 708

students with a mean age of 10.3 years of age. Comparisons were made between DARE and non-DARE groups. An analysis of scores revealed that DARE students initiated alcohol use less in the prior year than the non-DARE group. These youth also reported less association with drug using peers and had an increase in attitudes against substance use. However, the DARE and non-DARE students did not differ substantially on the percentage reporting cigarette, tobacco, or marijuana use in the last year, or frequency of any drug use in the past month.

Behavioral data were collected on 100 ninth grade students by Kochis (1995). Of the subjects, 50 had completed the Drug Abuse Resistance Education program and 50 in a comparison group had not experienced the program. School and police records provided the data for criminal offenses by these youth. The experimental group in this study committed a mean number of .24 criminal offenses (standard deviation .82) and the control group committed a mean number of .02 (S=.14). These were not statistically different.

Roberts (1995) surveyed 400 boys and girls in grades 4 through 12 in order to assess the effectiveness of a drug education program. The participants were from Florida, Utah, Kentucky, and New York. A pretest was administered in September and a posttest in May. Some gains were shown for decision making and knowledge/attitudes. However,

older students showed fewer gains than younger students. No research results were found to evaluate relationships between DARE educated youth and drug and alcohol use over time.

Knowledge and Attitudes

Mayton (1989) surveyed 5,435 students in grades 7-12 from north central Idaho. A questionnaire included items concerning attitudes towards drugs and their usage, and also asked questions concerning basic knowledge about drugs. Scores for these items along with scores from 9 other selected risk factors were combined to indicate a composite risk factor index. The researcher found that as the number of risk factors increased for an adolescent, the likelihood of drug use increased as well.

Berdiansky (1991) questioned 3,502 youth concerning their knowledge of and attitude toward alcohol and drug use after their schools had offered drug prevention programs. Berdiansky found that beliefs about the dangers and health risks of some drugs corresponded to lower usage rates of those substances, but that teaching about the harmful effects of the hard drugs seemed to de-emphasize the dangers of the gateway drugs to which youth are most vulnerable. Donnermeyer (1993) found that rural youth who held more liberal attitudes on consumption and laws

regarding enforcement of drug laws, were more likely to use alcohol, marijuana, and hard drugs.

A study in the rural southwest of 2,635 middle school and high school students viewed the relationship between knowledge of the "drug culture" and substance use. A one-way analysis of variance revealed that high school males had the highest drug knowledge scores followed by high school females, middle school males and then middle school females. Other findings showed higher substance use among students with higher levels of "drug culture" knowledge. The researchers also found that the earlier youth began to use drugs and alcohol the more they knew about the drug culture. The Drug Knowledge Questionnaire (DKQ) used for this study included items which pertained to street names, current prices, effects and origins of drugs, drug apparatus, and methods of ingestion (Raskin, Novacek, & Hogan, 1992). The researchers examined knowledge as a factor by itself and did not include attitudes concerning use of alcohol and drugs.

Attitudes toward alcohol use were examined by Keefe (1994) in a small midwestern city. Participants were from junior high and high school and numbered 399. The findings indicated that as age increased for the participants, grades 7 through 12, fewer costs (negative consequences) were expected from the use of alcohol.

Two studies completed in rural Kansas communities used the variables attitude toward alcohol and knowledge of alcohol as part of the instrument. Strecker (1991) studied sixth and eighth graders and found attitude toward alcohol use positively associated with perceived peer attitude and perceived parental attitude. Strecker found no association between knowledge of alcohol and the individual's attitude toward alcohol use. Esplund (1994) modified Strecker's instrument for grades 9 through 12 and found attitude toward drinking to be positively associated with alcohol use.

Trends in attitudes and beliefs have been studied nationally by Johnston and Others (1995) since 1975. Disapproval of most illicit drugs, including alcohol, have declined among 8th and 10th graders each year since 1992.

Summary

Research results indicated multiple factors associated with the use and abuse of alcohol and other nonprescriptive mind altering substances by today's youth. A review of the literature indicated gender and grade level to have a substantial association with alcohol and substance use. Most researchers found male users outnumbered females and consumption rates increased as grade level advanced. Mixed evidence exists as to the influence of family structure on use. Some researchers found more users from single parent homes. The DARE

program's long-term effect could not be ascertained through the review of literature. Attitudes toward alcohol and other mind altering substances were found to be associated with use, but knowledge of alcohol and other substances was not conclusively associated with use or abstinence.

Statement of the Problem

The purpose of the researcher was to investigate attitudes toward alcohol and other mind altering substances of students grades 7-9.

Rationale and Importance of the Study

School counselors will deal with the effects of alcohol and substance use or abuse either directly with the student user or with the sons and daughters of users. Information on local, regional, and national statistics regarding use and abuse of these substances will enable the counselor to better comprehend the scope and magnitude of some of the problems with which he or she must deal. Programs aimed at education and prevention will be enhanced and made more effective with knowledge of what substances youth are being exposed to and what factors seem to encourage their use.

Teachers, counselors, community organizations, and others who work with youth may use the results of the present study to gain information regarding the following variables: gender, grade placement, family structure, DARE

participation status, knowledge of and attitude toward alcohol and other mind altering substances.

The results from the present study provided information pertaining to the following questions:

1. Is there an association between gender and alcohol and substance questionnaire scores?
2. Is there an association between grade placement and alcohol and substance questionnaire scores?
3. Is there an association between family structure and alcohol and substance questionnaire scores?
4. Is there an association between Drug Abuse Resistance Education and alcohol and substance questionnaire scores?
5. Is there an association between alcohol and substance use and alcohol and substance questionnaire scores?
6. Is there an association between knowledge of alcohol and substances and alcohol and substance questionnaire scores?

Composite Null Hypotheses

Each hypothesis was tested at the .0500 level.

1. The differences among mean attitude toward alcohol and nonprescriptive substance questionnaire scores according to gender, grade placement, and DARE participation status will not be statistically significant.

2. The differences among mean attitude toward alcohol and nonprescriptive substance questionnaire scores according to family structure, alcohol use, and knowledge of alcohol will not be statistically significant.

3 The differences among mean alcohol and nonprescriptive substance questionnaire scores according to gender, substance use, and knowledge of substances will not be statistically significant.

Null Hypothesis

The difference between the calculated correlation coefficient for Attitude Toward Drinking and Attitude Toward Mind Altering Substance Use scores among students in grades 7-9 and zero will not be statistically significant.

Independent Variables and Rationale

The following independent variables were investigated: gender, grade placement, DARE participation status, family structure, alcohol use, nonprescriptive mind altering substance use, Knowledge of Alcohol, and Knowledge of Nonprescriptive Mind Altering Substances. The independent variables were investigated for the following reasons:

1. the literature indicated changing trends for some of the variables,
2. limited information was found for some variables,

3. the need for a local study of these variables, and
4. inconsistent results were found for some variables.

Definition of Variables

Independent Variables

All independent variables were obtained by a self-reporting instrument. The following independent variables were investigated:

1. grade placement--three levels,
   level one, grade 7,
   level two, grade 8, and
   level three, grade 9;
2. gender--two levels,
   level one, male, and
   level two, female;
3. family structure--four levels determined post hoc,
   level one, biological parents,
   level two, mother and stepfather,
   level three, single mother, and
   level four, other;
4. DARE participation status,
   level one, graduate, and
   level two, non-graduate;
5. alcohol use--three levels determined post hoc,
   level one, never,
   level two, low (once a month or less), and
   level three, high (other);

6. substance use--three levels determined post hoc,
   level one, never;
   level two, low (once a month or less), and
   level three, high (other);
7. Knowledge of Alcohol--three levels determined post hoc,
   level one, low (scores of 8 and less out of a possible 12)
   level two, intermediate (scores of 9, 10), and
   level three, high (scores of 11, 12);
8. Knowledge of Nonprescriptive Mind Altering Substances--three levels determined post hoc;
   level one, low (scores of 8 and less out of a possible 12),
   level two, intermediate (scores of 9, 10), and
   level three, high (scores of 11, 12).

Dependent Variables

Scores from the following subscales of an alcohol and nonprescriptive mind altering substance questionnaire were employed as the dependent variables:

1. Attitude Toward Alcohol--10 items (possible scores 10 to 40), and
2. Attitude Toward Nonprescriptive Mind Altering Substance Use--10 items (possible scores 10 to 40).

Limitations

The following might have affected the results of the present study:

1. the sample was not random,
2. respondents were limited to one middle school and one high school in central Kansas,
3. most of the data were self-reported, and
4. the subjects were from one geographical area.

Methodology

Setting

The researcher selected a community in central Kansas to conduct the study. The community had one middle school with 200 plus students in each of grades 7 and 8. The high school in the community had a ninth grade class comprised of 200 plus students. The community was the largest in population for that region of the state with approximately 16,000 residents. The economy was based on agriculture, oil production, and some light manufacturing. A community college was also part of the community.

Subjects

Contact was made by phone to the principals of the middle school and high school in the community. The principals then referred the researcher to the counseling office at each school. Students in seventh and eighth grades were already assigned to groups of approximately 100 pupils for instructional purposes. Selection of the core

groups to be surveyed was left to the discretion of the counseling department. Selection of ninth grade students was made by the counseling office at the high school. Five ninth grade English classes were chosen for administration of the questionnaire.

One hundred instruments were delivered for each grade level with verbal instructions to survey as near to 100 students as possible. An informational letter was sent to each student's parents/guardians (Appendix A) with instructions to return the letter signed if the parent did not wish to have their child participate. No letters were returned. The seventh grade completed 89 instruments, and of these 82 were usable. The eighth grade completed 89 instruments and 77 were usable. The ninth grade completed 80 instruments of which 74 were usable. The sample consisted of 233 subjects with 123 females and 110 males.

Instrumentation

Esplund (1994) edited the Alcohol Attitude Questionnaire (AAQ) created by Strecker [(1991), Appendix B]. The revised questionnaire was comprised of 5 sections (Appendix C):

1. Section 1--demographics (sex, grade, and use); use consisted of 3 questions pertaining to frequency, quantity, and beverage used,

2. Section 2 consisted of 10 questions pertaining to attitudes toward alcohol with a Likert-type rating,
3. Section 3 consisted of 10 questions pertaining to parental attitudes with a Likert-type rating,
4. Section 4 consisted of 10 questions pertaining to peer attitudes with a Likert-type rating, and
5. Section 5 consisted of 12 true-false questions pertaining to knowledge of alcohol.

The present researcher sought and was granted permission to use and edit sections of Strecker's and Esplund's instruments (Appendixes D, E). The new questionnaire included sections pertaining to nonprescriptive mind altering substances. The mind altering substance sections of the questionnaire were developed with the same format as Esplund's alcohol sections. Ideas were taken from the preliminary review of the literature and materials developed by the Drug Abuse Resistance Education program. The new questionnaire (Appendix F) consisted of 5 sections.

1. Demographic Sheets,
2. Attitude Toward Drinking Alcoholic Beverages,
3. Knowledge of Alcohol,
4. Attitude Toward Nonprescriptive Mind Altering Substance Use Other Than Alcohol, and

5. Knowledge of Nonprescriptive Mind Altering Substances Other Than Alcohol.

The Demographic Sheets contained 6 independent variables. Included were gender, grade placement, DARE participation status, family structure, alcohol use, and substance use. The family structure part asked with whom the subjects had spent most of their lives. The alcohol use section contained 2 parts. The first part asked what beverage the subjects drank, if they drank: beer, wine or wine coolers, or hard liquor. This information was not used as a variable in the present research; however, it was summarized in Appendix G. The second part of the alcohol use section asked how often the subjects drank.

The substance use section contained 2 parts. The first part asked what substance was usually used if the subjects used: tobacco, marijuana, cocaine, inhalants, methamphetamine, or others. This information was not used as a variable in the present research; however, it was summarized in Appendix H. The second part of the substance use section asked how often the subjects used mind altering substances.

The third section of the instrument, Knowledge of Alcohol, contained 12 true-false questions. One point was awarded for each correct answer for a possible score of 0 to 12.

The fifth section of the instrument, Knowledge of Nonprescriptive Mind Altering Substances Other Than Alcohol contained 12 true-false questions. One point was awarded for each correct answer for a possible score of 0 to 12.

The procedure for scoring the second and fourth sections, Attitude Toward Drinking Alcoholic Beverages and Attitude Toward Nonprescriptive Mind Altering Substance Use sections, consisted of adding the points from each question, which combined for possible scores of 10 to 40. For the Attitude Toward Drinking Alcoholic Beverages section, each positive alcohol attitude question (questions 1,2,3,6,8,9, and 10) was scored as follows: strongly disagree = 1, disagree = 2, agree = 3, and strongly agree = 4, with inverse scoring for negative attitude toward mind altering substance questions (questions 4, 5, and 7). Those scores nearest to 40 showed the strongest positive attitude toward alcohol, substances and their use. Those scores nearer to 10 showed the strongest negative attitude toward alcohol, substances and their use.

Design

A status survey factorial design was employed. The following independent variables were investigated: gender, grade placement, DARE participation status, family structure, alcohol use, substance use, Knowledge of Alcohol, and Knowledge of Other Mind Altering Substances.

The dependent variables were scores from the Attitude Toward Drinking and Attitude Toward Other Substance Use sections of the questionnaire. The sample consisted of 233 subjects. Three composite null hypotheses were tested at the .05 level using a three-way analysis of variance (general linear model). One null hypothesis was tested employing a *t*-test for a correlation coefficient. The following designs were utilized:

Composite null hypothesis number one, a 2x3x2 factorial design;

Composite null hypothesis number two, a 4x3x3 factorial design;

Composite null hypothesis number three, a 3x3x2 factorial design; and

Null hypothesis for a single correlation coefficient, a *t*-test for a correlation coefficient.

Ten threats to internal validity were cited in McMillan and Schumacher (1989). The 10 threats to internal validity were dealt with in the following ways:

1. history--did not pertain because the present study was status survey;
2. selection--the sample of students was not random but all students who were present at the time of administration and completed usable copies were included;

3. statistical regression--did not pertain because the present study was status survey;
4. testing--did not pertain because the present study was status survey;
5. instrumentation--did not pertain because the present study was status survey;
6. mortality--all subjects who completed usable copies of the questionnaire were included in the present study;
7. maturation--did not pertain because the present study was status survey;
8. diffusion of treatment--did not pertain because the present study was status survey;
9. experimenter bias--standard procedures were used for collecting data (by individuals other than the researcher) and there was no treatment (see Appendix I); and
10. statistical conclusion--two mathematical assumptions of the analysis of variance were violated (random sampling and equal numbers of subjects in cells); a general linear model was used to correct for the lack of equal numbers in cells, and the researcher did not project beyond the statistical procedures employed.

Two threats to external validity were cited by McMillan and Schumacher (1989). The two threats to external validity were dealt with in the following ways:

1. population external validity--the sample was one of convenience, so generalizations should be confined to similar subjects and similar settings; and
2. ecological external validity--the data were collected by standard procedures, and no treatment was employed.

Data Collection Procedures

A personal visit to the superintendent of the school district seeking permission to collect data was followed by a formal written request (Appendix J). Permission was granted (Appendix K). Contact was made with each building principal who then referred the researcher to the respective counseling departments. Questionnaires along with parent letters, teacher instructions (Appendix I) and student instructions (Appendix L), were delivered to each counseling department. Teachers were given instructions pertaining to the procedure to be employed in administering the copies of the questionnaire (Appendix I). The instructions asked teachers to collect all copies and return them to the researcher in envelopes which were provided. The researcher then examined the questionnaires for completeness, scored, and coded the data. Personnel in

the computing center at Fort Hays State University entered and analyzed the data.

Research Procedures

The following steps were implemented:

1. chose the research topic;
2. conducted search for related literature using ERIC, PsychLit, Sociology Index, Social Sciences Index and Psychology Abstracts;
3. collected and completed a precursory review of the literature;
4. selected the instrument;
5. requested permission to use and revise the instrument;
6. revised the instrument;
7. composed a review of the literature;
8. determined the population to be sampled;
9. requested permission from the superintendent to collect data;
10. received permission to collect data;
11. collected the data;
12. wrote a proposal;
13. defended the proposal;
14. prepared a data sheet;
15. wrote and defended a final report; and
16. edited the final document.

Data Analysis

The following were compiled:

1. appropriate descriptive statistics;
2. three-way analysis of variance (general linear model),
3. *t*-test for a correlation coefficient,
4. Bonferroni (Dunn) *t*-test for means, and
5. Duncan's multiple range test for means.

Results

The purpose of the researcher was to investigate attitudes toward alcohol and other nonprescriptive mind altering substances of students in grades 7-9. The following independent variables were investigated: gender, grade placement, DARE participation status, family structure, alcohol use, substance use, Knowledge of Alcohol, and Knowledge of Other Nonprescriptive Mind Altering Substances. The dependent variables were scores from the Attitude Toward Drinking and Substance Use questionnaire. The sample consisted of 233 students. Three composite null hypotheses and one null hypothesis were tested at the .05 level. A status survey factorial design was employed using a three-way analysis of variance (general linear model). One hypothesis was tested employing a *t*-test for correlation coefficient. The following designs were utilized:

Composite null hypothesis number one, a 2x3x2 factorial design;

Composite null hypothesis number two, a 4x3x3 factorial design;

Composite null hypothesis number three, a 3x3x2 factorial design; and

The null hypothesis, a *t*-test for correlation coefficient.

The results section was organized according to composite null hypotheses for ease of reference. Information pertaining to each composite hypothesis was presented in a common format for ease of comparison.

It was hypothesized in composite null hypothesis number 1 that the differences among mean alcohol and substance questionnaire scores for students in grades 7-9 according to gender, grade placement, and DARE participation status would not be statistically significant. Information pertaining to this composite null hypothesis was presented in Table 1. The following information was cited in Table 1: variables, group sizes, means, standard deviations, *F* values, and *p* levels.

Table 1: A Comparison of Mean Alcohol and Substance Questionnaire Scores for 7th-9th Grade Students According to Gender, Grade Placement, and DARE Participation Status Employing a Three-Way Analysis of Variance (General Linear Model)

Variable	n	M*	s	F value	p level
		Attitude Toward Drinking**			
Gender (A)					
Males	110	22.4	7.68	0.04	.8426
Females	123	19.7	7.23		
Grade Placement (B)					
7th	82	20.0	7.20		
8th	77	20.5	7.18	0.40	.6732
9th	74	22.6	8.14		
DARE Participation Status (C)					
Graduate	92	20.2	6.92	0.28	.5943
Non-graduate	141	21.5	7.92		
		Interactions			
		A x B		1.78	.1711
		A x C		0.06	.8043
		B x C		1.62	.2009
		A x B x C		4.31	.0390

(continued)

Table 1 (continued)

Variable	n	M*	s	F value	p level
Attitude Toward Nonprescriptive Mind Altering Substance Use					
Gender (A)					
Males	110	19.8	8.33	0.02	.8884
Females	123	17.0	7.41		
Grade Placement (B)					
7th	82	17.3	7.02		
8th	77	18.5	7.92	0.55	.5750
9th	74	19.2	8.94		
DARE Participation Status (C)					
Graduate	92	17.4	6.55	0.48	.4905
Non-graduate	141	18.9	8.75		
Interactions					
A x B				8.76	.0002
A x C				0.29	.5929
B x C				1.12	.3274
A x B x C				5.28	.0225

*The larger the value the more positive the attitude.
**The possible scores and theoretical means were the following: Attitude Toward Drinking 10-40, 25; and Attitude Toward Nonprescriptive Mind Altering Substances Use 10-40, 25.

Three of the 14 p values were statistically significant at the .05 level; therefore, the null hypotheses for those comparisons were rejected. The statistically significant comparisons were for the following interactions:

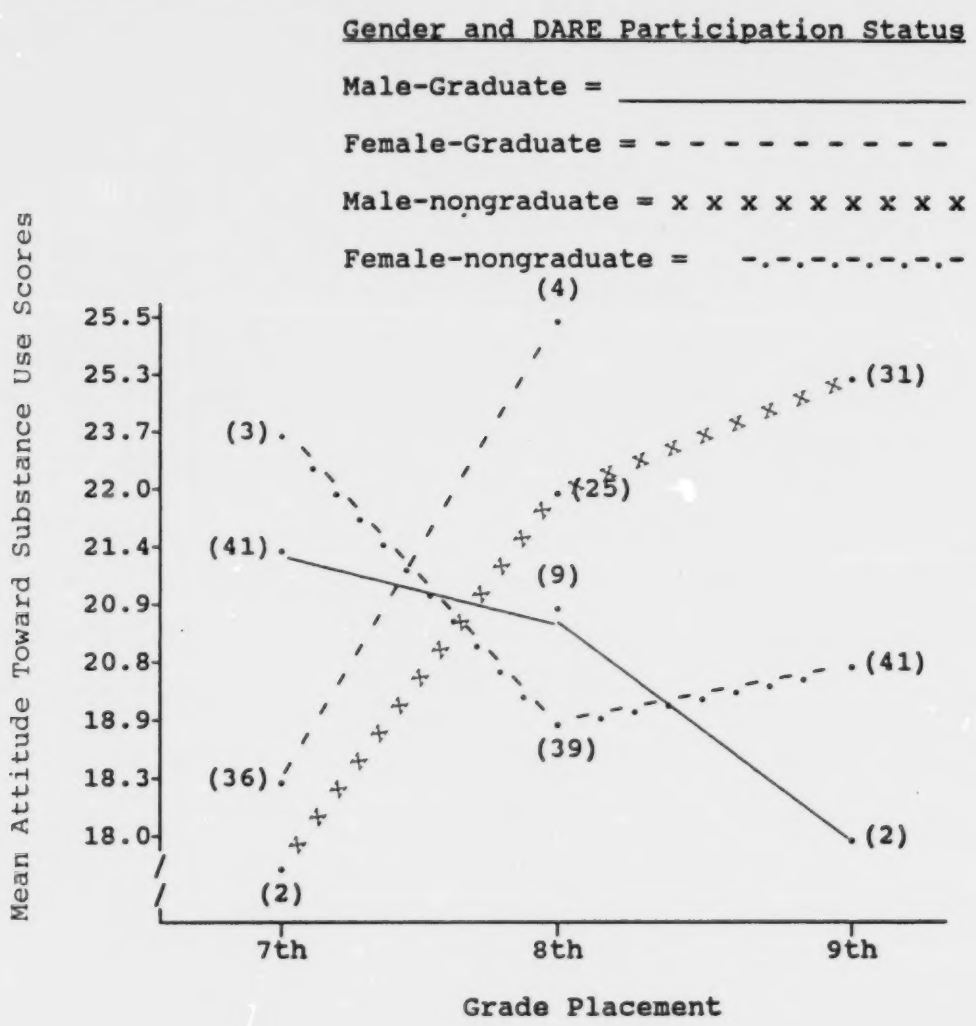
1) the independent variables gender, grade placement, and DARE participation status for the dependent variable Attitude Toward Drinking,

2) The independent variables gender and grade level for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use, and

3) the independent variables gender, grade placement, and DARE participation status for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use.

The interaction among gender, grade placement, and DARE participation status for the dependent variable Attitude Toward Drinking was depicted in a profile plot. Figure 1 contains mean Attitude Toward Drinking scores and curves for gender and DARE participation status.

Figure 1: The Interaction Among Gender, Grade Placement, and DARE Participation Status for the Dependent Variable Attitude Toward Drinking

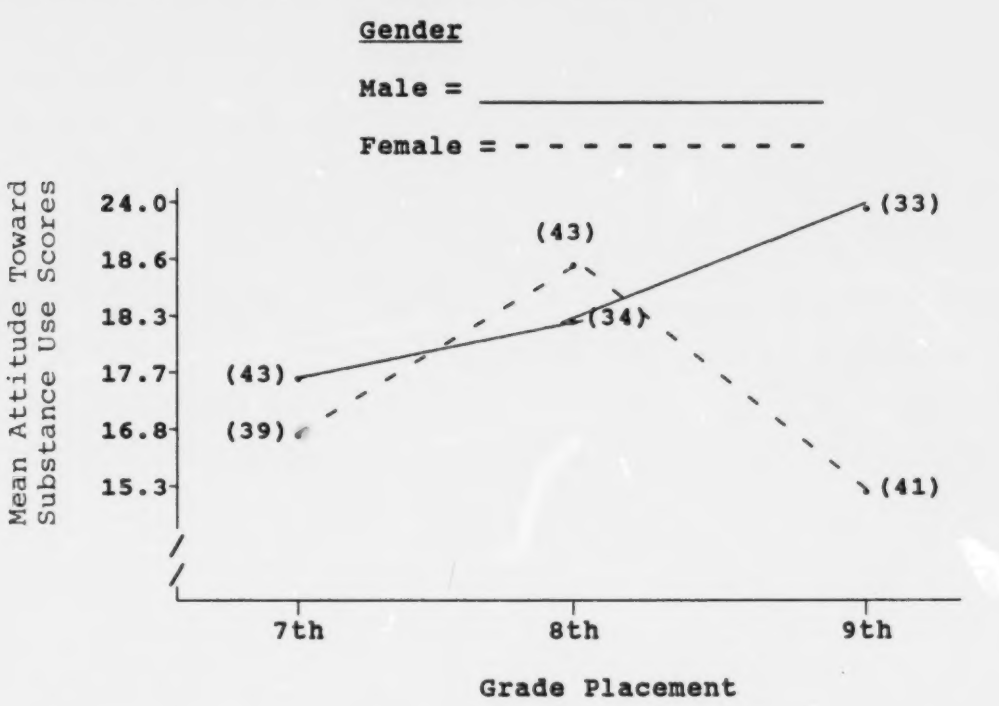


The interaction among gender, grade placement, and DARE participation status for the dependent variable Attitude Toward Drinking was disordinal. The results cited in Figure 1 indicated the following:

1) female students who were graduates of DARE and in grade 8 had numerically the highest (most positive) mean Attitude Toward Drinking scores of any subgroup, and
2) male students who were nongraduates of DARE and in grade 7 had numerically the lowest (least positive) mean Attitude Toward Drinking scores of any subgroup.

The interaction between gender and grade placement for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use was depicted in a profile plot. Figure 2 contains mean Attitude Toward Nonprescriptive Mind Altering Substance Use and curves for gender.

Figure 2: The Interaction Between Gender and Grade Placement for the Dependent Variable Attitude Toward Nonprescriptive Mind Altering Substance Use



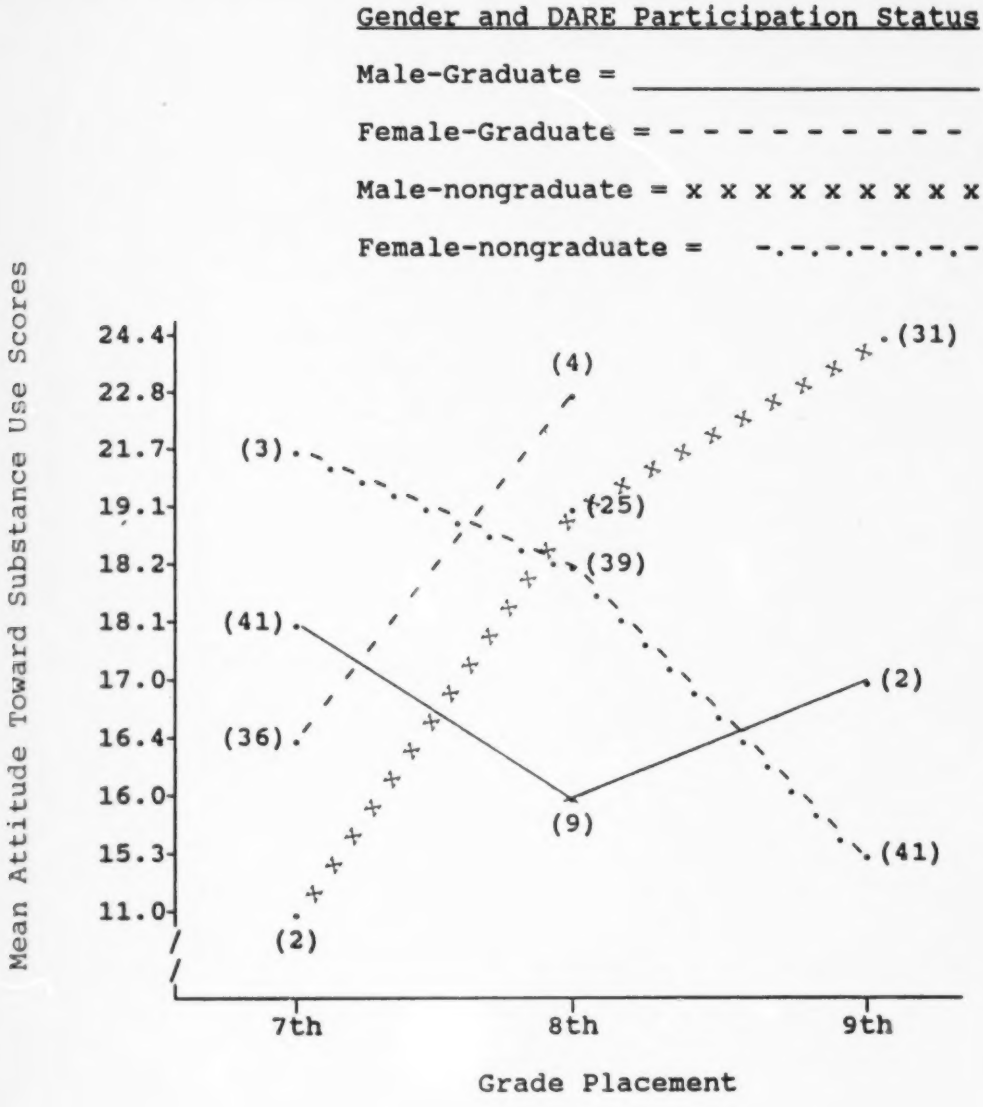
The interaction between gender and grade placement for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use was disordinal. The results cited in Figure 2 indicated the following:

1) male students in grade 9 had numerically the highest (most positive) mean Attitude Toward Descriptive Mind Altering Substance Use scores of any subgroup, and
2) female students in grade 9 had numerically the lowest (least positive) mean Attitude Toward

Nonprescriptive Mind Altering Substance Use scores of any subgroup.

The interaction among gender, grade placement, and DARE participation status was depicted in a profile plot. Figure 3 contains mean Attitude Toward Nonprescriptive Mind Altering Substance Use and curves for gender and DARE participation status.

Figure 3: The Interaction Among Gender, Grade Placement, and DARE Participation Status for the Dependent Variable Attitude Toward Nonprescriptive Mind Altering Substance Use



The interaction among gender and DARE participation status for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use was disordinal. The results cited in Figure 3 indicated the following:

1) male students who were nongraduates of DARE and in grade 9 had numerically the highest (most positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use scores of any subgroup, and
2) male students who were nongraduates of DARE and in grade 7 had numerically the lowest (least positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use scores of any subgroup.

It was hypothesized in null hypothesis number 2 that the differences among mean alcohol and substance questionnaire scores for students in grades 7-9 according to family structure, alcohol use, and Knowledge of Alcohol would not be statistically significant. Information pertaining to this composite null hypothesis was presented in Table 2. The following information was cited in Table 2: variables, group sizes, means, standard deviations, F values, and p levels.

Table 2: A Comparison of Mean Alcohol and Substance Questionnaire Scores for 7th-9th Grade Students According to Family Structure, Alcohol Use, and Knowledge of Alcohol Employing a Three-way Analysis of Variance (General Linear Model)

Variable	n	M*	s	F value	p level
		Attitude Toward Drinking**			
Family Structure (D)					
Biological Parents	156	19.7	6.92		
Mother and Stepfather	27	23.7	8.72	1.82	.1453
Single Mother	35	22.7	8.13		
Other	15	25.3	7.32		
Alcohol Use (E)					
High	38	30.3[a]	6.64		
Low	84	23.2[b]	5.68	46.25	.0001
Never	111	16.1[c]	4.84		
Knowledge of Alcohol (F)					
High	34	19.12	7.08		
Intermediate	113	20.2	6.57	0.93	.3971
Low	86	22.7	8.63		
		Interactions			
		D x E		0.48	.8222
		D x F		0.45	.8142
		E x F		0.42	.7918
		D x E x F		1.25	.2687

(continued)

Table 2 (continued)

Variable	n	M*	s	F value	p level
Attitude Toward Nonprescriptive Mind Altering Substances Use					
Family Structure (D)					
Biological Parents	156	17.2	7.25		
Mother and Stepfather	27	19.7	9.99	1.73	.1621
Single Mother	35	20.0	8.58		
Other	15	22.7	7.86		
Alcohol Use (E)					
High	38	28.2[a]	7.95		
Low	84	18.9[b]	7.26	40.83	.0001
Never	111	14.5[c]	4.87		
Knowledge of Alcohol (F)					
High	34	15.6[a]	7.28		
Intermediate	113	17.0[a]	6.77	3.53	.0311
Low	86	21.0[b]	8.95		
		Interactions			
		D x E		1.15	.3325
		D x F		1.58	.1662
		E x F		0.21	.9334
		D x E x F		2.72	.0052

*The larger the value the more positive the attitude.
**The possible scores and theoretical means were the following: Attitude Toward Drinking 10-40,25; and Attitude Toward Nonprescriptive Mind Altering Substance Use 10-40,25.
[ab]The difference is statistically significant at the .05 level according to Bonferroni (Dunn) t test for means.

Four of the 14 p values were statistically significant at the .05 level; therefore, the null hypotheses for those comparisons were rejected. Three of the 4 significant comparisons were for main effects. The following main effects were statistically significant:

1) the independent variable alcohol use and the dependent variable Attitude Toward Drinking,
2) the independent variable alcohol use and the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use, and
3) the independent variable Knowledge of Alcohol and the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use.

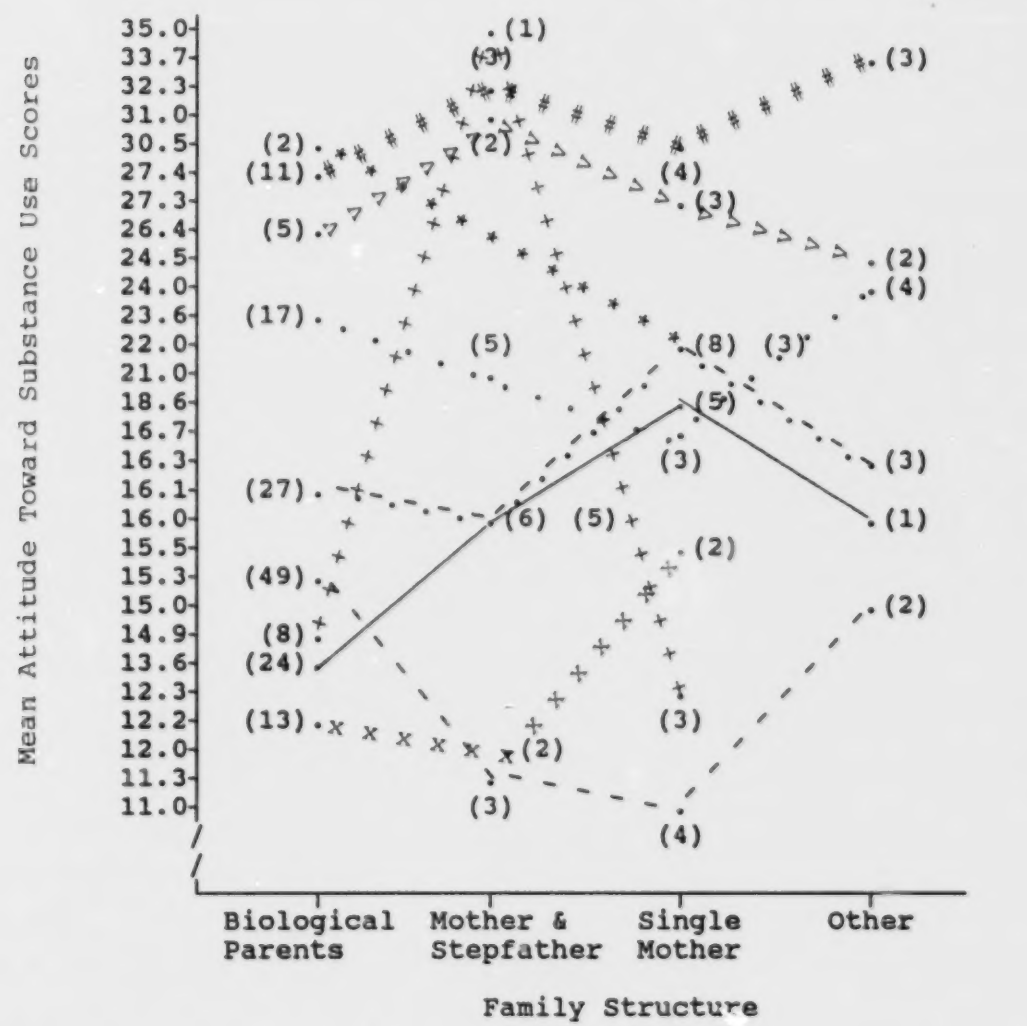
The results cited in Table 2 indicated the following for main effects:

1. the students who reported the highest alcohol use had statistically the highest (most positive) mean Attitude Toward Drinking score, students who reported low alcohol use had a statistically lower (less positive) mean Attitude Toward Drinking score than those with high use and statistically higher than those who never used alcohol, and students who reported never using alcohol had the statistically lowest (least positive) mean Attitude Toward Drinking score,

2) the students who reported the highest alcohol use had statistically the highest (most positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use score, students who reported low alcohol use had a statistically lower (less positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use score than those with high use and statistically higher than those who never used alcohol, and students who reported never using alcohol had the statistically lowest (least positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use score, and
3) students who had the least Knowledge of Alcohol had a mean Attitude Toward Nonprescriptive Mind Altering Substance Use score statistically larger than those with intermediate and high Knowledge of Alcohol.

The interaction among family structure, alcohol use, and Knowledge of Alcohol was depicted in a profile plot. Figure 4 contains mean Attitude Toward Nonprescriptive Mind Altering Substance Use and curves for alcohol use and Knowledge of Alcohol.

Figure 4: The Interaction Among Family Structure, Alcohol Use, and Knowledge of Alcohol for the Dependent Variable Attitude Toward Nonprescriptive Mind Altering Substance Use



The interaction among family structure, alcohol use, and Knowledge of Alcohol for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use was disordinal. The results cited in Figure 4 indicated the following:

1) students with low alcohol use, high Knowledge of Alcohol and living with their mother and stepfather, and students with high alcohol use, low Knowledge of Alcohol and living with someone other than biological parents, mother and stepfather, or a single mother had numerically the highest (most positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use of any subgroup, and
2) students who reported never using alcohol with intermediate Knowledge of Alcohol and living with a single mother had numerically the lowest (least positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use of any subgroup.

It was hypothesized in composite null hypothesis number 3 that the differences among mean alcohol and substance questionnaire scores for students in grades 7th-9th according to gender, substance use, and Knowledge of Substances would not be statistically significant. Information pertaining to this composite null hypothesis was presented in Table 3. The following information was

cited in Table 3: variables, group sizes, means, standard deviations, F values, and p levels.

Table 3: A Comparison of Mean Alcohol and Substance Questionnaire Scores for 7th-9th Grade Students According to Gender, Substance Use, and Knowledge of Substances Employing a Three-way Analysis of Variance (General Linear Model)

Variable	n	M*	s	F value	p level
		Attitude Toward Drinking**			
Gender (A)					
Males	110	22.4	7.68	0.47	.4960
Females	123	19.7	7.23		
Substance Use (G)					
High	29	29.8[a]	7.76		
Low	35	27.2[b]	5.14	48.67	.0001
Never	169	18.2[c]	5.83		
Knowledge of Nonprescriptive Mind Altering Substances (H)					
High	60	20.7	6.89		
Intermediate	127	20.0	7.20	2.55	.0803
Low	46	24.1	8.59		
		Interactions			
		A x G		0.17	.8424
		A x H		2.38	.0953
		G x H		0.96	.4285
		A x G x H		1.88	.1143

(continued)

Table 3 (continued)

Variable	n	M*	s	F value	p level
Attitude Toward Nonprescriptive Mind Altering Substance Use					
Gender (A)					
Males	110	19.8	8.33	0.04	.8440
Females	123	17.0	7.41		
Substance Use (G)					
High	29	29.7[a]	7.65		
Low	35	24.3[b]	7.80	69.90	.0001
Never	169	15.1[c]	5.07		
Knowledge of Nonprescriptive Mind Altering Substances (H)					
High	60	16.6[a]	6.75		
Intermediate	127	17.5[a]	7.65	7.36	.0008
Low	46	22.7[b]	8.67		
Interactions					
A x G				0.65	.5208
A x H				3.71	.0262
G x H				2.37	.0539
A x G x H				2.42	.0495

*The larger the value the more positive the attitude.
**The possible scores and the theoretical means were the following: Attitude Toward Drinking 10-40,25; and Attitude Toward Nonprescriptive Mind Altering Substance Use 10-40,25.
[ab]The difference is statistically significant at the .05 level according to Bonferroni (Dunn) t test for means.

Five of the 14 p values were statistically significant at the .05 level; therefore, the null hypotheses for those comparisons were rejected. Three of the 5 significant comparisons were for main effects. The following main effects were statistically significant:

1) the independent variable substance use and the dependent variable Attitude Toward Drinking,
2) the independent variable substance use and the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use, and
3) the independent variable Knowledge of Nonprescriptive Mind Altering Substances and the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use.

The results cited in Table 3 indicated the following main effects:

1) the students who reported the highest substance use had statistically the highest (most positive) mean Attitude Toward Drinking score, students who reported low substance use had a statistically lower (less positive) mean Attitude Toward Drinking than those with high use and statistically higher than those who never used alcohol, and students who reported never using substances had the statistically lowest (least positive) mean Attitude Toward Drinking score,

2) the students who reported the highest substance use had statistically the highest (most positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use score, students who reported low substance use had a statistically lower (less positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use than those with high use and statistically higher than those who never used substances, and students who reported never using substances had the statistically lowest (least positive) mean Attitude Toward Mind Altering Substance Use score, and
3) students who had the least Knowledge of Nonprescriptive Mind Altering Substances had a mean Attitude Toward Nonprescriptive Mind Altering Substance Use score statistically larger than those with intermediate and high Knowledge of Nonprescriptive Mind Altering Substance.

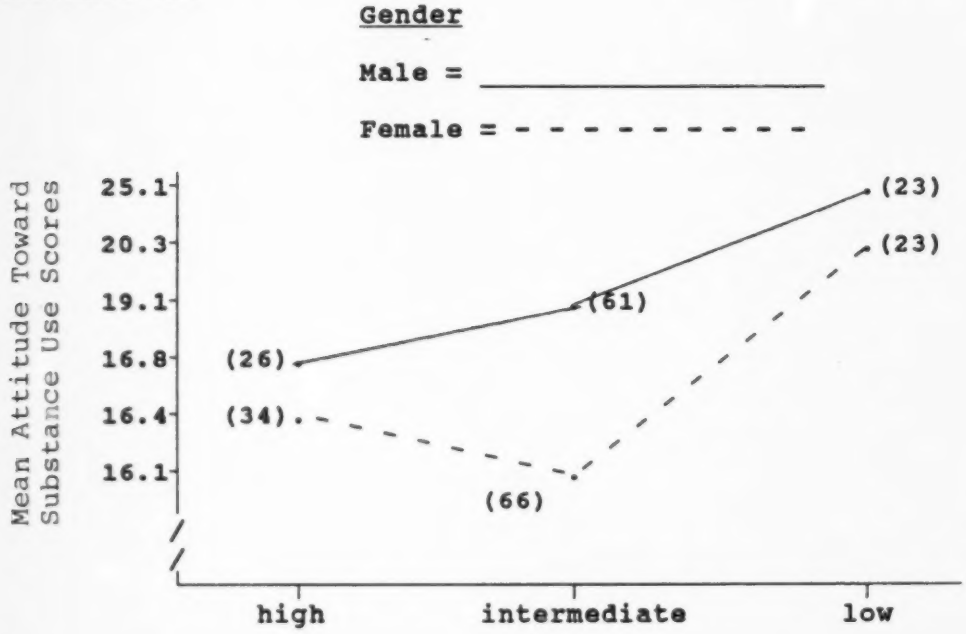
Two statistically significant comparisons were for the following interactions:

1) the independent variables gender and Knowledge of Nonprescriptive Mind Altering Substances for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use, and
2) the independent variables gender, substance use, and Knowledge of Nonprescriptive Mind Altering

Substances for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use.

The interaction between gender and Knowledge of Nonprescriptive Mind Altering Substances for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use was depicted in a profile plot. Figure 5 contains mean Attitude Toward Nonprescriptive Mind Altering Substance Use scores and curves for gender.

Figure 5: The Interaction Between Gender and Knowledge of Nonprescriptive Mind Altering Substances for the Dependent Variable Attitude Toward Nonprescriptive Mind Altering Substance Use

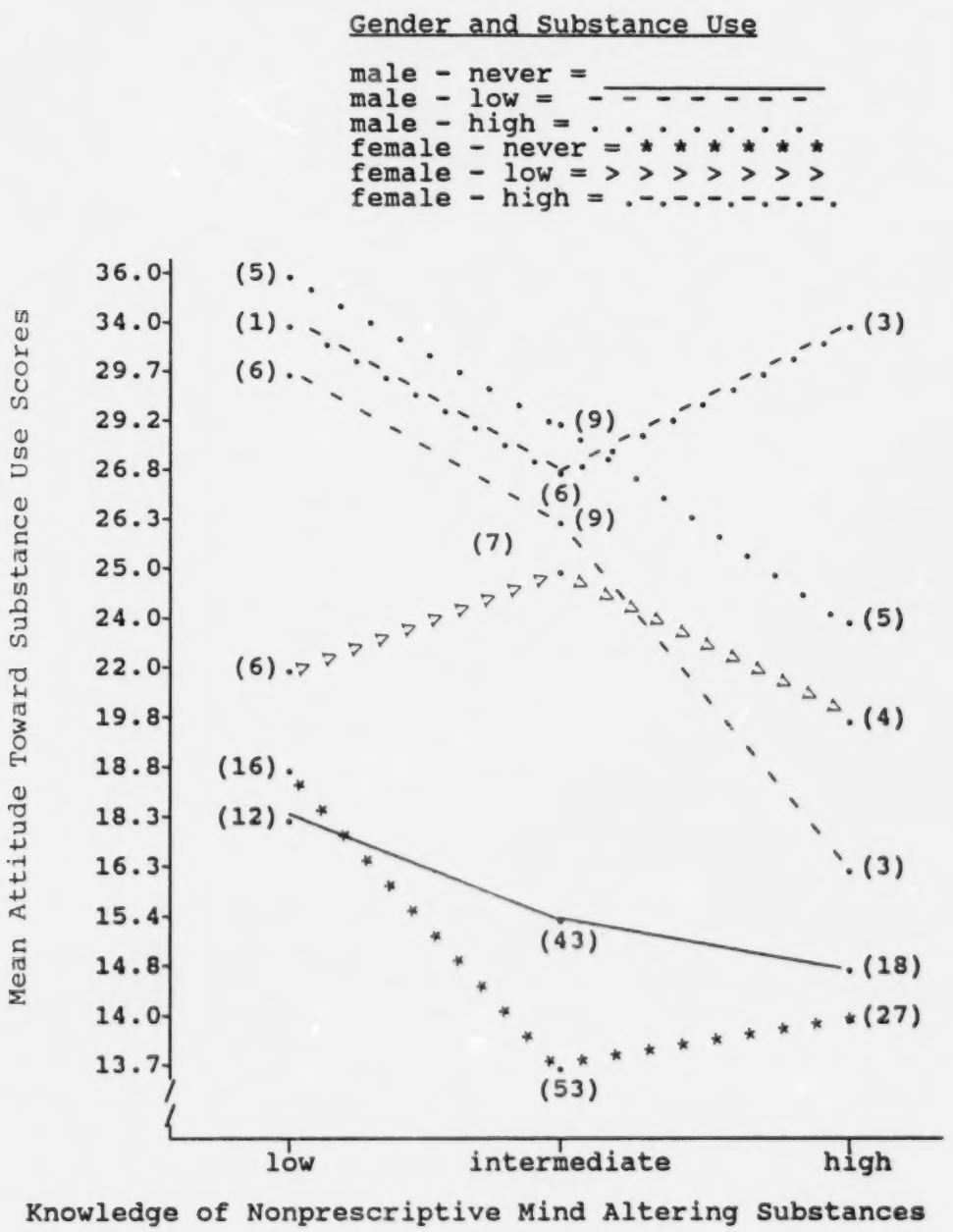


The interaction between gender and Knowledge of Nonprescriptive Mind Altering Substances for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use was ordinal. The results cited in Figure 5 indicated the following:

1) male students with low Knowledge of Nonprescriptive Mind Altering Substances had numerically the highest (most positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use score of any subgroup, and
2) female students with intermediate Knowledge of Nonprescriptive Mind Altering Substances had numerically the lowest (least positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use score of any subgroup.

The interaction among gender, substance use, and Knowledge of Nonprescriptive Mind Altering Substances was depicted in a profile plot. Figure 6 contains mean Attitude Toward Nonprescriptive Mind Altering Substance Use and curves for gender and substance use.

Figure 6: The Interaction Among Gender, Substance Use, and Knowledge of Nonprescriptive Mind Altering Substances for the Dependent Variable Attitude Toward Nonprescriptive Mind Altering Substance Use



The interaction among gender, substance use, and Knowledge of Nonprescriptive Mind Altering Substances for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use was disordinal. The results cited in Figure 6 indicated the following:

1) male students with high substance use and low Knowledge of Nonprescriptive Mind Altering Substances had numerically the highest (most positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use score of any subgroup, and
2) female students who reported having never used substances and with intermediate Knowledge of Nonprescriptive Mind Altering Substances had numerically the lowest (least positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use score of any subgroup.

It was hypothesized in null hypothesis number 4 that the difference between the calculated correlation coefficient for Attitudes Toward Drinking and Attitudes Toward Other Mind Altering Substance Use scores among students in grades 7-9 and zero would not be statistically significant. Information pertaining to this null hypothesis was presented in Table 4. The following information was cited in Table 4: variables, group sizes, means, standard deviations, and correlation coefficient.

Table 4: A Comparison of the Calculated Correlational Coefficient for Attitude Toward Drinking, Attitude Toward Substance Use, and Zero for 7th-9th Grade Students Employing a t-test for Single Mean

Variable	n	M*	s	r
Attitude Toward Drinking	233	21.0	7.55	.78*
Attitude Toward Nonprescriptive Mind Altering Substance Use	233	18.3	7.97	

*Statistically significant at the .01 level.

The calculated correlational coefficient of .78 was statistically significant at the .05 level; therefore, the null hypothesis for this comparison was rejected. The results cited in Table 4 indicated that the correlational coefficient was statistically greater than zero.

Discussion

Summary

The purpose of the researcher was to investigate the attitudes toward alcohol and other mind altering substances of students in grades 7-9. The 8 independent variables investigated were gender, grade placement, Drug Abuse Resistance Education, family structure, alcohol use, substance use, Knowledge of Alcohol, and Knowledge of Substances. The dependent variables were scores from the

Attitude Toward Drinking and Attitude Toward Substance Use questionnaire.

A summary of the types of alcoholic beverages drunk and other nonprescriptive mind altering substances used were reported in Appendix G and Appendix H, respectively. Three composite null hypotheses and one null hypothesis were tested at the .05 level of significance. The sample consisted of 233 students in grades 7-9. A status survey factorial design was employed using a three-way analysis of variance (general linear model), and one hypothesis was tested employing a t-test for correlation coefficient. A total of 41 comparisons were made with 2 recurring. Of the 41 comparisons 17 were for main effects and 24 for interactions. Of the 17 main effects 7 were statistically significant at the .05 level.

The following main effects were statistically significant:

1. the independent variable alcohol use for the dependent variable Attitude Toward Drinking,
2. the independent variable alcohol use for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use,
3. the independent variable Knowledge of Alcohol for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use,

4. the independent variable substance use for the dependent variable Attitude Toward Drinking,
5. the independent variable substance use for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use, and
6. the independent variable Knowledge of Nonprescriptive Mind Altering Substances for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use, and
7. the correlation coefficient between scores from Attitude Toward Drinking and Attitude Toward Nonprescriptive Mind Altering Substance Use.

The results of the present study indicated the following for the main effects:

1) the students who reported the highest alcohol use had statistically the highest (most positive) mean Attitude Toward Drinking score, students who reported low alcohol use had a statistically lower (less positive) mean Attitude Toward Drinking score than those with high use and statistically higher than those who never used alcohol, and students who reported never using alcohol had the statistically lowest (least positive) mean Attitude Toward Drinking score, and
2) the students who reported the highest alcohol use had statistically the highest (most positive) mean

Attitude Toward Nonprescriptive Mind Altering Substance Use score, students who reported low alcohol use had a statistically lower (less positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use score than those with high use and statistically higher than those who never used alcohol, and students who reported never using alcohol had the statistically lowest (least positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use score,

3) the students who had the least Knowledge of Alcohol had a mean Attitude Toward Nonprescriptive Mind Altering Substance Use score statistically higher than those with intermediate and high Knowledge of Alcohol,

4) the students who reported the highest substance use had statistically the highest (most positive) mean Attitude Toward Drinking score, students who reported low substance use had a statistically lower (less positive) mean Attitude Toward Drinking than those with high use and statistically higher than those who never used alcohol, and students who reported never using substances had the statistically lowest (least positive) mean Attitude Toward Drinking score,

5) the students who reported the highest substance use had statistically the highest (most positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use score, students who reported low substance use had a statistically lower (less positive) mean Attitude Toward Nonprescriptive Mind Altering Substance Use than those with high use and statistically higher than those who never used substances, and students who reported never using substances had the statistically lowest (least positive) mean Attitude Toward Mind Altering Substance Use score,

6) students who had the least Knowledge of Nonprescriptive Mind Altering Substances had a mean Attitude Toward Nonprescriptive Mind Altering Substance Use score statistically larger than those with intermediate and high Knowledge of Nonprescriptive Mind Altering Substances, and

7) the correlation coefficient between Attitude Toward Drinking and Attitude Toward Nonprescriptive Mind Altering Substance Use was greater than zero.

Of the 24 interactions 6 were statistically significant at the .05 level. The following interactions were statistically significant:

1. the independent variables gender, grade placement, and DARE participation status for the dependent variable Attitude Toward Drinking,
2. the independent variables gender and grade placement for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use,
3. the independent variables gender, grade placement, and DARE participation status for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use,
4. the independent variables family structure, alcohol use, and Knowledge of Alcohol for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use,
5. the independent variables gender and Knowledge of Nonprescriptive Mind Altering Substances for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use, and
6. the independent variables gender,substance use and Knowledge of Nonprescriptive Mind Altering Substances for the dependent variable Attitude Toward Nonprescriptive Mind Altering Substance Use.

The Related Literature and Results of the Present Study

The results of the present study appeared to support the finding of Esplund (1994) and Keefe (1994) who reported an association between alcohol use and attitude toward drinking. Esplund found an association between Knowledge of Alcohol and Attitude Toward Drinking. The results of the present research did indicate an association. Gender and grade placement were not associated with Attitude Toward Drinking in Esplund's research results, but significant interactions were found for gender, grade placement, DARE participation status and Attitude Toward Drinking in the present research.

Strecker (1991) reported no association found between knowledge of alcohol and attitude toward alcohol use. The findings of the present research did not support Strecker's results. An association was found for Knowledge of Alcohol and Attitude Toward Drinking. Strecker indicated no association found between gender and Attitude Toward Alcohol Use or grade placement and Attitude Toward Alcohol Use; however, significant interactions were found for these variables in the present study. Berdiansky (1991) reported an association between attitudes and beliefs about alcohol and drugs and their use. The results of the present research supported these findings.

Raskin, Novacek, and Hogan (1992), reported drug knowledge positively related to youth's personal drug use.

The results of the present research do support that association.

Generalizations

The results of the present study appear to support the following generalizations:

1. students who use alcohol have a positive attitude toward drinking,
2. students who use substances have a positive attitude toward drinking,
3. gender, grade placement, and DARE participation status should be interpreted concurrently for attitude toward drinking,
4. gender and grade placement should be interpreted concurrently for attitude toward mind altering substances,
5. gender, grade placement, and DARE participation status should be interpreted concurrently for attitude toward mind altering substances,
6. family structure, alcohol use, and knowledge of alcohol should be interpreted concurrently for attitude toward mind altering substances,
7. gender and knowledge of mind altering substances should be interpreted concurrently for attitude toward mind altering substances, and
8. gender, substance use, and knowledge of mind altering substances should be interpreted

concurrently for attitude toward mind altering substances.

Implications

The results of the present study appear to support the following implications:

1. a rationale for developing a program to reduce alcohol and substance abuse of middle and high school students,
2. a guideline for the content emphasis of a program to reduce alcohol and substance use and abuse of middle and high school, students, and
3. the community should focus greater attention on the use and abuse of alcohol and other substances among middle and highs school students.

Recommendations

Results of the present study appeared to support the following recommendations:

1. the study should be replicated in surrounding communities,
2. the study should be replicated to assess the effectiveness of the DARE program,
3. the study should be replicated in an urban area,
4. the study should be replicated employing more comprehensive variables, and
5. the study should be replicated using a large random sample.

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Appendix A

Parent Letter

Dear Parents:

In a few days your child will be asked to complete a questionnaire about alcohol and drugs. The purpose of the questionnaire is to gather data for research. I am completing work on a thesis at Fort Hays State University, and the data being collected is central to that work. Your child's responses are voluntary and will be kept confidential. His/her identity will not be known; however, if you do not want your child to participate in this study, please sign below.

Thank you for your time and cooperation.

Sincerely,

Pam Redetzke

I do not want my child to participate in the study described above.

Signed_____ _____Date_____

Appendix B

Strecker Questionnaire

ALCOHOL ATTITUDE QUESTIONNAIRE

Section 1.

SEX: ☐ male ☐ female

AGE: _____ CLASS: _____

Section 2. Individual Attitude

1. Drinking is not healthy.
   ☐ strongly disagree ☐ disagree ☐ agree ☐ strongly agree

2. Parties and alcohol go together.
   ☐ strongly disagree ☐ disagree ☐ agree ☐ strongly agree

3. It is O. K. to get drunk.
   ☐ strongly disagree ☐ disagree ☐ agree ☐ strongly agree

4. It is wrong for minors to drink .
   ☐ strongly disagree ☐ disagree ☐ agree ☐ strongly agree

5. I hate being around people drinking.
   ☐ strongly disagree ☐ disagree ☐ agree ☐ strongly agree

6. I like to be around people who drink.
   ☐ strongly disagree ☐ disagree ☐ agree ☐ strongly agree

7. Drinking is O. K. if you don't get drunk.
   ☐ strongly disagree ☐ disagree ☐ agree ☐ strongly agree

8. Drinking is for fools.
   ☐ strongly disagree ☐ disagree ☐ agree ☐ strongly agree

9. Drinking makes people feel good.
   ☐ strongly disagree ☐ disagree ☐ agree ☐ strongly agree

10. I would like getting high on alcohol.
    ☐ strongly disagree ☐ disagree ☐ agree ☐ strongly agree

Section 3. Parental Attitude

1. My parents have friends who drink a lot.

☐ YES ☐ NO

2. My parents think it is all right to drink at parties.

☐ YES ☐ NO

3. One or both of my parents drink.

☐ YES ☐ NO

4. If I had a drink my parents would be upset.

☐ YES ☐ NO

5. My parents usually keep some type of alcohol in our house.

☐ YES ☐ NO

6. My parents think it is OK to drink.

☐ YES ☐ NO

7. If I got drunk my parents would be upset.

☐ YES ☐ NO

8. My parents will allow me to drink when I am in high school.

☐ YES ☐ NO

9. My parents have given me a drink.

☐ YES ☐ NO

Section 4. Peer Attitude

1. Do your close friends think it is "cool" to drink?

☐ YES ☐ NO

2. Do you have close friends who drink?

☐ YES ☐ NO

3. Has any good friend ever gotten drunk?

☐ YES ☐ NO

4. Would your best friend be mad at you if you drank?

☐ YES ☐ NO

5. If a good friend offered a drink, would you take it?

☐ YES ☐ NO

6. Would your best friend be mad at you if you got drunk?

☐ YES ☐ NO

7. If you had a party would you allow a friend to bring alconol?

☐ YES ☐ NO

8. My friends drink once in a while.

☐ YES ☐ NO

9. My friends will probably drink when they get in high school.

☐ YES ☐ NO

Section 5. Knowledge of Alcohol

1. Do alcoholics dress and look different than most people?

☐ YES ☐ NO

2. Is alcohol considered a drug?

☐ YES ☐ NO

3. To legally drink alcohol in Kansas you must be at least ___ years old.

☐ 16 ☐ 18 ☐ 21

4. Is alcoholism considered a disease?

☐ YES ☐ NO

5. A small amount of alcohol actually improves your reactions and thinking by relaxing you.

☐ YES ☐ NO

6. Alcoholics are people who are drunk most of the time.

☐ YES ☐ NO

7. A shot glass is a large mug that beer is served in.

☐ YES ☐ NO

8. Which contains the most alcohol; an ounce of beer, an ounce of wine, or an ounce of whiskey.

☐ beer ☐ wine ☐ whiskey

9. It would be easy for an alcoholic to stop drinking if they really wanted to.

☐ YES ☐ NO

10. Alcohol is less harmful than other drugs, such as marijuana.

☐ YES ☐ NO

Appendix C

Esplund Questionnaire

Demographic Sheet

(Answer all questions and mark each question only once by placing an "X" in the appropriate blank.)

SEX: _____ male _____ female

GRADE: _____ freshman

_____ sophomore

_____ junior

_____ senior

USE:

1. How often do you drink alcoholic beverages.

   a. _____ Never

   b. _____ Once a month or less

   c. _____ Once a week

   d. _____ Two or three times a week

   e. _____ Four or five times a week

   f. _____ Daily

**If you marked the first question "never." please omit the second and third questions.

2. Which of the following do you usually drink? (mark all that obtain)

   a. _____ Beer

   b. _____ Wine or wine coolers

   c. _____ Hard liquor (Whiskey, Vodka, Schnapps, ect.)

3. How many drinks do you usually have each time? (Please mark only one.)

   a. _____ 1 -- 2

   b. _____ 3 -- 4

   c. _____ 5 or more.

Attitude Toward Drinking

(Answer all questions and mark each question only once by placing an "X" in the appropriate blank.)

1. Everyone has a right to drink as much as he/she wants.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

2. Parties and alcohol go together.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

3. It is all right to get drunk.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

4. Minors should not drink.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

5. Someone should never drink alcoholic beverages.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

6. I like being around people who drink.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

7. Getting drunk is not cool.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

8. Drinking makes people feel good.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

9. I would like to get a "buzz" on alcohol.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

10. Teenagers should be able to drink as much as they want.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

Parental Attitude

(Answer all questions and mark each question only once by placing an "X" in the appropriate blank.)

1. My parents have many friends who drink a lot.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

2. My parents think it is all right for me to drink at parties.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

3. One or both of my parents drink a lot.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

4. If my parents knew I had a drink, they would be upset.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

5. My parents usually keep alcoholic beverages in our home.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

6. My parents think drinking is all right.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

7. My parents do <u>not</u> attend social functions where alcohol is served.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

8. My parents allow me to drink.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

9. On occasion, my parents have given me alcoholic beverages.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

10. I have drunk in the presence of my parents.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

Peer Attitude

(Answer all questions and mark each question only once by placing an "X" in the appropriate blank.)

1. My close friends think it is "cool" to drink.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

2. I have close friends who drink.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

3. A good friend of mine has been drunk.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

4. My best friend would be mad at me if I drank.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

5. If a good friend offered me a drink, and I did not take it, he/she would be upset.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

6. My best friend would be mad at me if I got drunk.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

7. If my friend had a party, he/she would be mad if I brought alcohol.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

8. My friends drink once in a while.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

9. Most of my friends drink.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

10. My friends think it is cool to drink.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

BEST COPY AVAILABLE

Knowledge of Alcohol

(Answer all questions and mark each question only once by placing an "X" in the appropriate blank.)

1. Alcoholics dress and look differently than most people.

   ____ YES ____ NO

2. Alcohol is considered a drug.

   ____ YES ____ NO

3. Heavy alcohol use is associated with liver damage.

   ____ YES ____ NO

4. Alcoholism is considered a disease by many people?

   ____ YES ____ NO

5. A small amount of alcohol actually improves your reactions and thinking by relaxing you.

   ____ YES ____ NO

6. Alcoholics are people who get drunk most of the time.

   ____ YES ____ NO

7. To be an alcoholic one must drink hard liquor.

   ____ YES ____ NO

8. Which contains the most alcohol--an ounce of beer, an ounce of wine, or an ounce of whiskey?

   ____beer ____wine ____ whiskey

9. A smaller person will get drunk on less alcohol.

   ____ YES ____ NO

10. A person will be able to tell if he/she is too drunk to drive.

    ____ YES ____ NO

11. A person who frequently drinks a lot can drink more before his/her blood alcohol level increases enough to affect driving.

    ____ YES ____ NO

12. Even though no alcohol is in a persons blood stream, a hangover can impair his/her driving ability by up to 20%.

    ____ YES ____ NO

Appendix D

Letters to Srecker and Esplund

January 17, 1996
1887 N.E. 10th Avenue
Hoisington, Kansas 67544

Glen Strecker
4002 Country Lane
Hays, Kansas 67601

Dear Mr. Strecker,

I am a graduate student at Fort Hays State University, and am beginning work on my thesis. I have decided to look at attitudes concerning alcohol, and looked at your work in this area. Your thesis offers excellent direction for me.

I am seeking permission to use the instrument you developed for your study. Dona Eslpund used and modified the instrument, and I wish to gain the same permission.

Thank you for your assistance.

Sincerely,

Pamela M Redetzke

Pamela M. Redetzke

January 17, 1996
1887 N.E. 10th Avenue
Hoisington, Kansas 67544

Dona Esplund
Box 379
Minneola, Kansas 67865

Dear Mrs. Esplund,

I am starting work on my thesis, and want to look at attitudes concerning alcohol. I have looked over your work, and have found that your thesis is a good source for direction.

I am seeking your permission to use the instrument you used in your survery. With your permission, I will make some slight modifications. I am aware that you modified the original instrument created by Glen Strecker, and will seek his permission as well.

Thank you for your help.

Sincerely,

Pamela M. Redetzke

Pamela M. Redetzke

Appendix E

Permission from Strecker and Esplund

January 17, 1996
1887 N.E. 10th Avenue
Hoisington, Kansas 67544

Glen Strecker
4002 Country Lane
Hays, Kansas 67601

Dear Mr. Strecker,

I am a graduate student at Fort Hays State University, and am beginning work on my thesis. I have decided to look at attitudes concerning alcohol, and looked at your work in this area. Your thesis offers excellent direction for me.

I am seeking permission to use the instrument you developed for your study. Dona Eslpund used and modified the instrument, and I wish to gain the same permission.

Thank you for your assistance.

Sincerely,

Pamela M Redetzke

Pamela M. Redetzke

You have my permission to use + modify the instrument.

Glen Strecker

January 23, 1996

Box 379
Minneola, KS 67865

Pamela M Redetzke
1887 N.E. 10th Avenue
Hoisington, KS 67544

Dear Ms. Redetzke,

This letter is to confirm that you have my permission to use and modify the instrument that was developed for my thesis.

Sincerely,

Dona Esplund

Appendix F

Revised Instrument

DEMOGRAPHIC SHEET

(Answer all questions and mark each question only once by placing an "X" in the appropriate blank.)

SEX: _____Male _____Female

GRADE: _____7 _____8 _____9

DRUG AWARENESS RESISTANCE EDUCATION:

I am a graduate of DARE. _____Yes _____No

FAMILY STRUCTURE:

With whom have you spent most of your life?

_____Biological father and mother

_____Adoptive father and mother

_____Mother and stepfather

_____Father and stepmother

_____Single mother

_____Single father

_____Grandparents

_____Other (Please, specify) _____

ALCOHOL USE:

1. If and when you use alcoholic beverages, which of the following do you usually drink?

   a. _____ Beer

   b. _____ Wine or wine coolers (other than for religious purposes)

   c. _____ Hard liquor (Whiskey, Vodka, Schnapps, ect.)

2. How often do you drink alcoholic beverages? (Other than for religious purposes.)

   a. _____ Never

   b. _____ Once a month or less

   c. _____ Once a week

   d. _____ Two or three times a week

   e. _____ Four or five times a week

   f. _____ Daily

SUBSTANCE USE:

1. If and when you use nonprescriptive mind altering substances, which of the following do you usually use?

   a. _____ Tobacco (cigarettes, snuff, chewing tobacco)

   b. _____ Marijuana

   c. _____ Cocaine (crack, etc.)

   d. _____ Inhalants (glue, gasoline, aerosols, etc.)

   e. _____ Methamphetamine

   f. _____ Others (please, specify) _____

2. How often do you use nonprescriptive mind altering substances other than alcohol?

   a. _____ Never

   b. _____ Once a month or less

   c. _____ Once a week

   d. _____ Two or three times a week

   e. _____ Four or five times a week

   f. _____ Daily

ATTITUDE TOWARD DRINKING ALCOHOLIC BEVERAGES

(Answer all questions and mark each question only once by placing and "X" in the appropriate blank.)

1. Everyone has a right to drink as much as he/she wants.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

2. Parties and alcohol go together.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

3. It is all right to get drunk.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

4. Minors should not drink.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

5. People should never drink alcoholic beverages.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

6. I like being around people who drink.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

7. Getting drunk is not cool.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

8. Drinking makes people feel good.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

9. I would like to get a "buzz" on alcohol.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

10. Teenagers should be able to drink as much as they want.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

KNOWLEDGE OF ALCOHOL

(Answer all questions and mark each question only once by placing an "X" in the appropriate blank.)

1. Alcoholics dress and look differently than most people.
   _____True _____False

2. Alcohol is considered a drug.
   _____True _____False

3. Heavy alcohol use is associated with liver damage.
   _____True _____False

4. Alcoholism is considered a disease by many people.
   _____True _____False

5. A small amount of alcohol actually improves your reactions and thinking by relaxing you.
   _____True _____False

6. Alcoholics are people who get drunk most of the time.
   _____True _____False

7. To be an alcoholic one must drink hard liquor.
   _____True _____False

8. Which contains the most alcohol--an ounce of beer, an ounce of wine, or an ounce of whiskey?
   _____ Beer _____ Wine _____ Whiskey

9. A smaller person will get drunk on less alcohol.
   _____True _____False

10. A person will be able to tell if he/she is too drunk to drive.
    _____True _____False

11. A person who frequently drinks a lot can drink more before his/her blood alcohol level increases enough to affect driving.
    _____True _____False

12. Even though no alcohol is in a person's blood stream, a hangover can impair his/her driving ability by up to 20%.
    _____True _____False

ATTITUDE TOWARD NONPRESCRIPTIVE MIND ALTERING SUBSTANCE USE OTHER THAN ALCOHOL

(Answer all questions and mark each question only once by placing an "X" in the appropriate blank.)

1. Everyone has a right to use mind altering substances whenever he/she wants.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

2. Mind altering substances and parties go together.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

3. It is all right to get high on mind altering substances.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

4. Minors should not use mind altering substances.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

5. People should never use mind altering substances.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

6. I like being around people who use mind altering substances.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

7. Getting "stoned" or high is not cool.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

8. Using mind altering substances makes people feel good.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

9. I would like to get high on a mind altering substance.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

10. Teenagers should be able to use mind altering substances as often as they want.

strongly disagree	disagree	agree	strongly agree
_____	_____	_____	_____

KNOWLEDGE OF NONPRESCRIPTIVE MIND ALTERING SUBSTANCES OTHER THAN ALCOHOL

(Answer all questions and mark each question only once by placing an "X" in the appropriate blank.)

1. Nicotine is addictive.
   _____True _____False

2. People under 18 can buy cigarettes legally.
   _____True _____False

3. Mind altering substances are dangerous to one's health.
   _____True _____False

4. All mind altering substances are illegal to possess.
   _____True _____False

5. Inhalants can become habit-forming.
   _____True _____False

6. Marijuana users may become dependent on the drug.
   _____True _____False

7. Another name for cocaine is "crack."
   _____True _____False

8. Some mind altering substances can stay in the bloodstream for several weeks.
   _____True _____False

9. Cocaine is only mildly addictive.
   _____True _____False

10. Cocaine can be injected.
    _____True _____False

11. Reefers, grass, pot, and weed are slang names for methamphetamine.
    _____True _____False

12. People who develop a tolerance to mind altering substances require less of the substance to feel the desired effects.
    _____True _____False

Appendix G

Summary of Alcohol Use

Summary of Alcohol Use

Reported Beverage Usually Drunk	Number Reporting Use	Grade Level
beer	23	
wine	10	7th
liquor	3	
beer	15	
wine	18	8th
liquor	11	
beer	23	
wine	6	9th
liquor	17	

Appendix H

Summary of Substance Use

Summary of Substance Use

Reported Substance Usually Used	Number Reporting Use	Grade Level
tobacco	12	
marijuana	5	7th
inhalants	2	
tobacco	9	
marijuana	9	8th
inhalants	1	
tobacco	9	
marijuana	17	9th
other	1	

Appendix I

Letter of Instructions to Teachers

Dear Teachers:

My master's work requires research which is essential for my thesis. Thank you for assisting me with my survey. I would like for you to distribute the enclosed questionnaires to your 7th, 8th, 9th grade class, and then read the instruction sheet to them. Please ask your students to work individually. Inform them that their identity will not be known, but if they chose not to complete the survey they need to give the questionnaire back to you. When all students have completed the questionnaire, please collect all copies and return them to me in the envelope provided.

Your help is truly appreciated.

Sincerely,

Pam Redetzke

Pam Redetzke

Appendix J

Letter to Superintendent

1887 N.E. 10th Avenue
Hoisington, Kansas 67544
April 4, 1996

Mr. Clay Guthmiller
Superintendent, USD #428
201 Patton Road
Great Bend, Kansas 67530

Dear Mr. Guthmiller,

Enclosed, please find copies of all the materials that will be used in the survey that we spoke about in your office this past week. I am seeking permission to use the questionnaire at Great Bend Middle School, grades 7 and 8, and at Great Bend High School, grade 9. If you have any questions, or wish to speak with me further, please contact me.

Thank you for your assistance.

Sincerely,

Pam Redetzke

Pam Redetzke

Appendix K

Letter of Approval from Superintendent

GREAT BEND 428

Clay Guthmiller
Superintendent

John Harris
Dr. Mike Aytes
Assistant Superintendents

April 29, 1996

Ms. Pam Redetzke
1887 NE 10th Ave.
Hoisington, KS 67544

Dear Pam:

Thank you for taking time to discuss the drug and alcohol survey proposal that is part of your graduate work at Fort Hays State University. After discussing the issue with Dr. Aytes and the building principals involved, approval has been given for its distribution. Please work with Mr. Brungardt and Mr. Parady regarding the administration of the survey. I do ask that you try to minimize the amount of classroom time needed to conduct the survey. We would also appreciate a copy of any results or conclusions you will gain from the survey.

Best wishes on completing the work for your advanced degree. Please call me if you have any further questions.

Sincerely,

Clay

Clay Guthmiller
Superintendent of Schools

CGva

201 Patton Road • Great Bend, Kansas 67530-4613 • (316) 793-1500 • FAX (316) 793-1585
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Appendix L

Student Instructions

INSTRUCTIONS

This is a study being conducted for a thesis in counseling at Fort Hays State University. You are not to put your name on the questionnaire. Your identity will remain unknown. Participation in this study is optional. If you choose not to participate, please return the questionnaire to your instructor unmarked.

When asked to begin, please record your most immediate response by placing an "X" in the appropriate blank space. Mark every item only once.

This survey will ask questions regarding alcohol and other mind altering substances. The alcohol sections refer to any type of alcoholic beverage such as beer, wine, whiskey, Schnapps, or others. The mind altering substance sections refer to any substance other than alcohol used to alter one's state of mind without a doctor's prescription such as tobacco, marijuana, cocaine, inhalants, methamphetamine, or others.